



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/614,127      | 07/08/2003  | Yasunori Ogawa       | 116452              | 6016             |

25944 7590 09/22/2005

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

DOWLING, WILLIAM C

ART UNIT PAPER NUMBER

2851

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/614,127

Applicant(s)

OGAWA, YASUNORI

Examiner

William C. Dowling

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 4-8 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 72903.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is are rejected under 35 U.S.C. 102(b) as being anticipated by Pellicori et al.

Pellicori et al. disclose an optical filter comprising:

a substrate (14);

layers (12) of alternating high and low refractive index materials tapered upon the substrate.

As noted in column 6 Lines 47-49 silicon dioxide may be use as the low refractive index film.

3. Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Li et al. (5,982,541).

Li et al. (5,982,541) discloses an optical device comprising :

a light modulator (402);

a projection system (405);

an "optical filter" disposed downstream from the modulator and having a substrate with an "optical conversion film" formed of alternate high and low refractive index layers formed on a substrate and tilted with respect to the projection axis.

See figures 6, 23, 46.

The structure of what constitutes a "optical conversion film" in applicant's specification is so broad as to constitute any structure formed of low and high index refractive layers. Further, a filter may be anything that lets some type of light pass while blocking others.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tadic-Geleb in view of Weber (6,697,195).

Tadic-Geleb discloses an optical device comprising :

a light modulator (38);

a projection system (10);

an "optical filter" (32) made of a DBEF disposed downstream from the modulator at an angle to the projection axis.

Weber (6,697,195 teaches that DBEF is made of films formed of alternate high and low refractive index layers formed on a substrate (Column 10 Lines 56-61)

The structure of what constitutes a "optical conversion film" in applicant's specification is so broad as to constitute any structure formed of low and high index refractive layers. Further, a filter may be anything that lets some type of light pass while blocking others.

6. Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pellicori et al. in view of Shimamura et al. (6,249,378).

Pellicori et al. disclose the invention substantially as claimed but do not teach the use of zirconium dioxide as a film of high refractive index.

Shimamura et al. teach the use of zirconium dioxide films alternately layered with silicon dioxide films in filter structures.

It would have been obvious to one skilled in the art to modify the device of Pellicori et al. by the substitution of alternate thin films such as zirconium dioxide as taught by Shimamura et al. because such materials would have been known to behave similarly.

7. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pellicori et al. in view of Cushing (6,011,652).

Pellicori et al. disclose the invention substantially as claimed but do not teach the use of tantalum pentoxide as a film of high refractive index.

Cushing teaches the use of tantalum pentoxide as an alternating film in an optical filter which may also use silicon dioxide.

It would have been obvious to one skilled in the art to modify the device of Pellicori et al. by the substitution of alternate thin films such as tantalum pentoxide

dioxide as taught by Cushing because such materials would have been known to behave similarly.

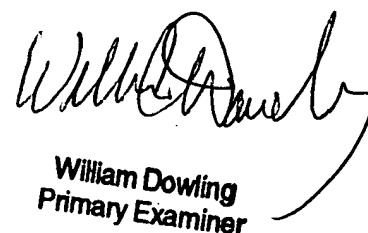
***Allowable Subject Matter***

8. Claims 4-8, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Dowling whose telephone number is 571-272-2116. The examiner can normally be reached on MON-THURS.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-1750. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William Dowling  
Primary Examiner